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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,392	07/15/2005	Yuichi Mori	55610/DBP/A400	3091

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EXAMINER

HAYES, KRISTEN C

ART UNIT	PAPER NUMBER
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3643

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/542,392

Applicant(s)

MORI ET AL.

Examiner

Kristen C. Hayes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20050715, 20071222.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (page 68, line 37). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

4. The use of the trademark SARAN has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Regarding claims 2-5, the awkward wording of the claim makes the claim difficult to understand. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

8. Regarding claim 4, it is unknown what units the measurement is taken in (dS/m, %, etc?).

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3, and 5-8 are rejected under 35 U.S.C. 102(a) as being anticipated by Tonkin US Patent 6,615,537.

11. Regarding claim 1, Tonkin discloses a plant cultivating device (Tonkin, Fig: 2) having a shape capable of receiving a plant body (4), the device comprising a film (5) capable of being substantially integrated with the root of the plant body.

12. Regarding claim 2, Tonkin discloses a device with the limitations of claim 1 further characterized by the film showing a difference of less than 4.5 dS/m in the electric conductivity in a water/saline solution system at the time four days after the start of measurement (Tonkin, column 4: lines 49-51...60-61, column 7: lines 39-40). Tonkin discloses film of a polyvinyl alcohol with a thickness of 40 $\mu$ m, which is one of the same films described in the specification of the instant application as showing a difference of less than 4.5 dS/m in electric conductivity in a water/saline solution system at the time four days after the start of measurement. The film disclosed by Tonkin meets the limitations of the claim.

13. Regarding claim 3, Tonkin discloses a device with the limitations of claim 1 further characterized by the film showing a difference of 4 or less in concentration of a water/glucose solution system at the time of three days after the start of measurement (Tonkin, column 4: lines 49-51...60-61, column 7: lines 39-40). Tonkin discloses film of a polyvinyl alcohol with a thickness of 40 $\mu$ m, which is one of the same films described in the specification of the instant application as showing a difference of less than 4 in

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electric conductivity in a water/glucose solution system at the time four days after the start of measurement is 4 or less.

14. Claims 1 and 5 are rejected under 35 U.S.C. 102(a) as being anticipated by Mori EP 1 203 525.

15. Regarding claim 1, Mori discloses a plant-cultivating device (1) having a shape capable of receiving a plant body (5) to be cultivated, the device comprising a film (4) capable of being substantially integrated with the root of the plant body.

16. Claims 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wright EP Application 0 268 556.

17. Regarding claim 6, Wright discloses a plant film integrate comprising a plant body (17) and a film (10) which has substantially been integrated with the root of the plant body (Wright, column 8: lines 18-25).

18. Regarding claim 7, Wright discloses a plant-cultivating method, comprising providing a plant-cultivating device (11) having a shape capable of receiving a plant (17) body to be cultivated, and comprising, as at least a portion thereof, a film (10) capable of being substantially integrated with the root of the plant body (Wright, column 8: lines 18-25); disposing the plant body in the device; and cultivating the plant body while allowing water containing a fertilizer component or a biologically active substance to be contacted with the plant body through at least the film (Wright, column 2: lines 10-32).

19. Regarding claim 8, Wright discloses a method with the limitations of claim 7 wherein a plant retaining support (16, 110) is disposed between the plant body and the film (Wright, column 7: lines 3-4, 8-9, 13-15).

***Claim Rejections - 35 USC § 103***

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tonkin US Patent 6,615,537.

22. Regarding claim 4, Tonkin discloses a device with the limitations of claim 1 further characterized by the film showing a peeling strength of 10g or more with respect to the root of the plant body (Tonkin, column 4: lines 49-51...60-61, column 7: lines 39-40). Tonkin discloses film of a polyvinyl alcohol with a thickness of 40µm, which is one of the same films described in the specification of the application as showing a peeling strength of 10g or more with respect to the root of the plant body at the time of day 35 at the inside of the film. Tonkin does not explicitly state that the peeling strength of the film is 10g or more, however, it would have been obvious to use such a film. The more force required to remove the film from the roots of the plant, the more likely that the film integrated with the roots. If a film with a peeling strength less than 10g might not fully integrate with the plant. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Tonkin with a film showing a peeling strength of 10g or more to ensure that the film integrated with the roots of the plant.

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23. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori EP 1 203 525.

24. Regarding claim 5, Mori discloses a device with the limitations of claim 1 further characterized by the film having a water impermeability of 30cm or more (Mori, page 5: lines 30, page 12: lines 52-53). Mori does not disclose the film having a water impermeability of 10cm or more. Lowering the pressure at which the film was permeable would ensure that fluids at a low pressure could pass through the film. Substances or impurities that could only pass through the film at higher pressures would not pass, allowing the film to act as a filter. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the film of Mori with a film having a water impermeability of 10cm or more to enable the film to act as a filter.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristen C. Hayes whose telephone number is 571-270-3093. The examiner can normally be reached on Monday-Thursday, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571)272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCH  
17 October 2007

Peter Poon  
Supervisory Patent Examiner  
Art Unit 3643

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